TRADING AND THE HUNTER-GATHERER CONNECTION

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The distractions, comforts and costs of modern society have atrophied our bodies, which were built (evolved by Mother Nature) to be vigorously exercised. This is more or less widely acknowledged.

The modern world has atrophied not only our bodies, but our brains.

What is not acknowledged is that the modern world has also atrophied our brains, with significant negative impacts on contentment, happiness and well-being.

The hardness of trading, oddly, is a potential antidote for this… for reasons not intuitive at first.

In Praise of Trading Being Hard

In this sense, the hardness of trading may not only be "good" for you — it could wind up proving a powerful boost to long-term contentment and fulfillment levels.

This a strange statement, in some respects, because trading is objectively a very challenging endeavor… "hard" in the meaningful sense.

Trading is a pursuit full of stress and challenge and setbacks. It is direct competition with other motivated humans. It is "high stakes" in ways that can produce anxiety. It requires grit and resilience in the face of a consistent stream of micro-disappointments. It can be brutal and bloody in the manner of a physical fight.

It is, in some ways, one of the hardest paths to wealth one could pursue.

But within the riddle resides the answer.

The hardness of trading is a feature, not a bug, in terms of fulfillment.

The hardness of trading – the sheer challenge of it – is also the contentment and fulfillment source. This connection, we will argue, is deeply backed by human biology.

For human beings, happiness and challenge go hand-in-hand because of where we came from… and because of the intrinsic mind-blowing excellence of the human body and brain as evolution-sculpted high performance machines designed to function best in diverse, dynamic and information-rich environments, where the stakes were high.

We were quite literally built to "go hard"… which is often why we are miserable, or at the very least deeply dissatisfied in a vague sort of way, without quite understanding why, after long and extended periods of having gone "soft."

And **the whole modern world has made us soft**, in a way – encouraging dangerously soft mentalities and a focus on soft comforts.

A hardness interjection (via pursuit of a truly challenging endeavor like trading) thus not only offers a potential remedy for that condition… it offers an upgrade to contentedness and fulfillment alongside.

Humans were shaped by their formative biological environment (not by the modern world).

As we will argue in the following pages, this is straight-up biology. It is tied into our physicality — who and what we are as physical beings **shaped by our formative biological environment** (which had nothing to do with the modern world).

The cognitive revolution was estimated to occur some 70,000 years ago… and the human brain reached its modern size and dimensions an estimated 80,000 years before that.

Basically, if a 150,000 year old human were to fall into a time warp that deposited them in 2016, and then died in New York City, and was examined by an experienced coroner, their body and brain would appear the same as most any other human walking around New York City today.

So the first thing to remember in this discussion – the core assertion if you will – is that our biology, meaning our brains and bodies and emotional systems, are deeply attuned to a hunter-gatherer type existence.

The earliest human prototype showed up some six million years ago… and it then took millions of years to develop our core configuration… and then, endowed with upgraded brains, we spent tens of thousands of years roaming the plains.

In the context of a timeline, the hunter-gatherer period spanned hundreds of thousands of years… the modern brain era something like 150,000 years… the cognitive revolution period 70,000 years.

The trappings of the modern world, as far as the body is concerned, are maybe a few seconds old.

Against that backdrop, the agricultural revolution – when we figured out how to plant crops and build population mass in stationary places – happened maybe two minutes ago. And the industrial revolution, which kicked off with the 18th century invention of the steam engine, is maybe a few *seconds* old.

And the modern world as we know it today – in which the Information Age, replacing the Industrial Age, is now upon us – came upon us so fast that, in biological terms, it has been here for roughly the space of an eye blink.

The Modern Society Mismatch

Let's quickly revisit the physical component of modern-day discontentment.

Humans are happier when physically fit because the body is a *machine* that optimizes itself through regular vigorous use.

Modern society has made us bloated relative to our original design.

Modern society has made us bloated, relative to our original 1.0 design, because in today's world we have an abundance of empty calories not available in our original habitats.

We crave sugar and fats in almost unlimited amounts because, for countless millennia – the vast span of our existence – both of these things were in extremely short supply as a rule of thumb.

Sugars and fats were delicacies to be savored, and hard to come by… so we learned to safely gorge on them when we could find them.

Now, of course, an explosive abundance of sugars and fats makes our gorging instinct a serious liability. (It also turns out that refined white sugar, which our ancestors did not have access to, may actually be a *toxin*, throwing body chemistry out of whack when consumed daily for decades.)

It was also the case that, back in the day, we had to physically work to obtain food.

The amount of physical work output per unit of food input was consistently high, teaching our bodies to become highly efficient fat-storing machines – because whatever fat we found, we were likely to burn, unless it was a dormant period where we needed to conserve it.

Nowadays we drive to the store in a car and obtain food in a bag… or worse yet get food from a drive-through window… in basically unlimited quantities, with almost no physical work.

The body has not adjusted to the ease of the modern world.

The hunter-gatherer body has not adjusted to this.

Again, as far as our bodies are concerned, the ability to store fat is a feature, not a bug, because the body is an incredibly efficient survival machine, designed for a world where caloric-rich food was scarce and caloric burn was high.

Today's global obesity epidemic is a biology-technology-lifestyle mismatch.

One of the reasons athletes appear so healthy, relative to the rest of the population, is because their lifestyle and diet habits are, by coincidence, much closer to the original diets of our hunter-gatherer predecessors.

Modern sports are physically taxing on the body in the manner of repetitive stress injury. Our bodies were designed to be athletic in a versatile type of way — not to swing a tennis racket a thousand times per day or bash helmets together.

But the overall athleticism born of exercise — when avoiding repetitive stress injury — is wonderfully good for us because it naturally engages the machine, in the manner that the machine (the human body) was precisely meant to be engaged (as optimized and fine-tuned by Mother Nature through countless millennia of selection pressure).

Downsides of the Agricultural Revolution

With the advent of the agricultural revolution, our world changed dramatically. There were many benefits to this. But there were also huge downsides, for both our bodies and our brains.

The agricultural revolution came with heavy costs.

In some ways the agricultural revolution – when we figured out how to grow food in sufficient abundance to increase the population in stationary places – gave us everything. But in other ways, the agricultural revolution took many things away and came at great cost.

After the agricultural revolution, the human diet went from nutrition-rich and diversified and varied, to stagnant and limited and nutrition-poor.

This was a function of exploding human population numbers. A roving band of hunter gatherers, covering a large land surface, could sustain itself on nuts and berries and mushrooms and meat and a whole host of other nutritious things.

The tendency to move, and to avoid domesticated animals, also meant disease had a hard time taking hold.

But then the agricultural revolution brought the ability to massively populate settled areas. This brought about a rapid acceleration of human culture because, with so many people together in one place, true specialization became possible, with a significant amount of human labor devoted to it.

Once farmers learned to farm, weavers learned to weave, and blacksmiths learned to blacksmith, in other words, you could also have music and calligraphy and other things.

But we paid a heavy price for these gifts – in terms of physical and mental health.

We paid a heavy price for the gifts of anchored civilization.

The population of humans was enabled by reliance on mono-crops… huge quantities of the same food. The rich and diverse hunter-gatherer diet was replaced by a bland sameness of wheat or rice or whatever it was, day after day.

Then too, the presence of domesticated animals and nearby sewage in stationary settlements — we had to settle down where the crops were, and couldn't move away from the sewage — led to rampant outbreaks of infection and disease.

The physical result of all this was that, even as human culture took off with the advent of agriculture, various physical and mental aspects of the human condition plummeted.

People literally got shorter – a significant height reduction took place – as a result of prolonged nutritional deficiency, via eating lower nutrition grains on a constant basis, with minimal variation or diversity in diets.

And people literally got sicker and weaker, as a result of rampant sickness and disease — in part enabled by large concentrations of people in stationary encampments, along with sanitary issues stemming from that… and in part from animal domestication, which sped up the evolution of viral parasites and crossover from animal population to human.

So towns and cities — enabled by the agricultural revolution — were a great invention that changed everything, culturally and technologically speaking.

Another negative side effect of settled agricultural life: soul-sapping boredom.

But they were also a horrible invention in terms of restricting human movement, shrinking the human diet, and introducing disease… and soul-sapping boredom.

After the agricultural revolution – and the advent of specialization – jobs started to take on the "mind-numbingly boring" characteristics we know so well today.

The life of a hunter-gatherer had many perils, but on the upside it was most likely diverse and interesting. There wasn't a fixed routine from one day to the next, or one week or month to the next.

With the advent of specialized jobs, however, life got boring indeed.

Humans went from roaming around the plains… constantly making discoveries and having new adventures, dealing with survival factors on a constant basis… to doing the same set of rote tasks, day after day.

We were built to roam and explore, not do the same thing over and over.

There is a reason why the roaming lifestyle is romanticized. It is what we were built for in formative biology terms. The "boring job" came about as a result of the agricultural revolution, and later the industrial revolution.

You can be assured there were people who hated their jobs, just as soon as we had enough repetition to require the making of bricks, the sowing of seeds and the counting of crops. (The first known instance of writing was related to accounting.)

The industrial revolution made this split-off even worse.

And the industrial revolution made it even worse…

After the industrial revolution, most "jobs" became the purest form of drudgery imaginable, short of slavery — turning a wrench on an assembly line… or the modern day equivalent, shuffling papers all day long… or some other job that is just incredibly mind-numbing.

Our minds and bodies were, quite literally, not built for this drudgery-industrial type work. There are biological reasons why we loathe it.

Again, these realities are mostly acknowledged – to the extent they are acknowledged – in terms of the *physical* body.

The benefits of exercise, and variety of physical routine, widely receive lip service today (if not actual widespread use). We grasp, at least in theory, that it's not good to be sedentary when we're meant to be moving around.

We don't realize what the modern world has taken from us.

But while we have started to understand our bodies somewhat better… the modern population has *not at all* generally considered how much the industrial revolution — and the modern convenience movement, powered by technology — has taken from our *mental* happiness as well.

Body and Brain as Extraordinary Machine

The human body is one of the most extraordinary machines in existence — a machine of such finely tuned capability and efficiency and balance and beauty, it makes the world's most advanced sports car look like a cheaply made piece of junk.

But here is the thing missed by so many: The human brain is even *more* of an amazing machine. (And the brain is inseparable from the body – its housing – to the extent the two work together as a co-evolved system.)

The human brain is the most elegant, powerful and versatile machine that has ever existed.

The human brain is the most elegant, powerful and versatile piece of machinery that has ever existed. It is so powerful we have been studying it for centuries and still barely understand its capabilities or workings.

And the industrial revolution and modern world softness… for all the harm it has done to our bodies… may be doing even *greater* harm to our brains, and our emotional states and happiness and contentment and fulfillment levels… due to the introduction of artificial softness, artificial abundance, and a lack of meaningful challenge stripped from our lives.

Your brain was built to be engaged as vigorously and routinely and extensively as your body… and when this fails to happen, your mental health degrades at the margins… and then so too does contentment and happiness.

The hunter-gatherer lifestyle was incredibly demanding on our bodies — in the best sense possible, in that it helped to mold and shape our bodies into excellent machines.

But that hunter-gatherer lifestyle was also demanding of our *brains* too… far more so than most people realize… which explains why human biology embraced the big brain concept in the first place.

Creative cooperation skills were an outgrowth of our big brains.

Human beings became the dominant species on the planet because of their creative cooperation skills, which in turn were an outgrowth of our big brains.

Chimpanzees can work together but only in groups that max out at 150 or so (usually much smaller). Wolves and hyenas can hunt in packs but again with limits. Ants and bees work together en masse, but only by running rote algorithms.

And animals have been shown to use tools and also to possess culture.

> Dolphins can teach other dolphins how to use a sponge as a nose guard when rooting for food on the sandy ocean floor.
>
> Killer whales have been shown to transmit group-specific habits and learned norms that tick off the boxes of having a culture.
>
> Ravens can drop a nut in a street intersection, wait for a car to run over the nut and burst the shell, then wait for a crosswalk signal to safely retrieve the contents.

No animal can match humans for creativity and cooperation at scale.

But nonetheless, no other animals match human beings on two scale-factors: Creativity and the ability to cooperate at nation-scale across geography and time.

Man has, quite literally, unleashed the power of his imagination in order to dominate the planet. And cooperation on a mass scale has allowed for cumulative knowledge gain at an accelerating pace.

Humans are designed by mother nature to act creatively and cooperatively, in order to survive and thrive. This loops back around to the “hard” versus “soft” question. To inspire feelings of contentment, humans need diversity and challenge.

Awesomely Diverse Capabilities

In respect to the awesomely diverse capability of a skill-equipped body and brain, there is a famous quote from science fiction writer Robert A. Heinlein that sounds very modern:

> *A human being should be able to change a diaper, plan an invasion, butcher a hog, conn a ship, design a building, write a sonnet, balance accounts, build a wall, set a bone, comfort the dying, take orders, give orders, cooperate, act alone, solve equations, analyze a new problem, pitch manure, program a computer, cook a tasty meal, fight efficiently, die gallantly. Specialization is for insects.*

It's a great quote and a noble sentiment. The last sentence is off-base though.

The human brain is generalist by design (able to specialize in multiple areas).

It's not so much that "specialization is for insects" as much as the fact that the human brain is powerful enough to handle *multiple* specialization areas, running in parallel all at once, and shouldn't be content with just one or two.

Gaining journeyman-level skill in all the areas Heinlein lists off would be no small feat – and in fact would be quite an impressive feat. It would certainly require using one's brain to a degree that is not popular today, in 2016.

Heading into the 21st century, we are still far from the Heinlein ideal of what a human should be able to do, and how diverse a human's skill sets should be, and far closer to Bertrand Russell's gloomy and accurate assessment:

> *Most people would sooner die than think; in fact, they do so.*

In the latter 20th and early 21st century we have embraced and enabled a culture of mental laziness, as an unfortunate byproduct of the abundance of consumer comforts and the narrowed work windows of the industrial age.

Modern humanity has an aversion to thinking hard, or even thinking at all.

The average modern human does not like to think harder than is necessary… does not like having their mental faculties taxed… and is secretly resentful (or possibly openly resentful) when a mental challenge pushes them out of their comfort zone.

This is not just an empirically observable phenomenon, it is a cultural phenomenon. It is now culturally acceptable to jokingly complain, or flat-out whine, about things being "too hard" or "too much effort." It is almost a badge of honor, in many circles, to say "I'm not good at math" as a person uses the calculator on their smartphone to calculate a waiter's tip.

Without quite saying it out loud, it is okay to be blatantly ignorant, as long as basic societal function is present. (In 2017, maybe societal function is receding too.)

It is wholly culturally acceptable, in today's modern world, to have literally zero intellectual enrichment… and to live on a diet of pure mental junk food (e.g. no books, no subjects of meaningful study, and a steady diet of Facebook and Netflix).

The softness born of our success as a species is now a toxin slowly killing us.

The softness we have been afforded by our successes as a species – the comfort we have created for ourselves – is also a toxin that slowly kills us (not unlike refined sugars, present in almost all processed foods). And the weakness created by comfort, and lack of responsibility, manifests itself mentally as well as physically.

This has led to a bizarre sort of anti-fact post-modernism, in which opinions matter above all and people are entitled to their own facts (a luxury only enabled by the successes of a system which is foundationally rooted in high-quality logistical function and fact-based complexity management).

Meanwhile free market capitalism, by way of Madison Avenue and Silicon Valley, naturally encourages this lazy-brained phenomenon by striving to give people exactly what they want, when they want.

(It has been joked that the ultimate Silicon Valley app would be "Birdly," in which pre-chewed food is delivered on demand and deposited in your mouth).

Why has society evolved this way? The drivers make sense when understood.

The biology-technology-culture mismatch is responsible for great discontentment and unhappiness.

It goes back, once again, to a biology-technology-culture mismatch. And this mismatch is responsible for a great deal of discontentment and unhappiness.

The natural human instinct is to conserve energy… and energy is conserved by not having to think. So a whole world of mindless entertainment and thought-minimal technology and labor saving devices are introduced, as such that the modern individual barely has to think at all.

The instinctive desire "not to have to think" is met in the marketplace by products and services that fulfill that desire. That is just the free market doing its job – we want "X" so we get a lot of it.

Facebook, for example, is wildly successful precisely because of our ancient wiring. Facebook, at its core, is simply a giant biology exploitation mechanism – an adaptive means of using electrons to feedback loop our deepest instincts.

Social cooperation was an original super-advantage for humans. Now it is an exploitable liability.

How so? In our formative biological environment, social interaction was vital. Humans, with their lack of muscles and claws, rose to dominate the planet through their ability to creatively cooperate in social groups. In that sense "social" was the original super-advantage.

At the same time, paying attention to rich and diverse information streams was key. You had to keep constant watch for new information and data in respect to resources, opportunities and dangers.

As hunter-gatherers we learned to be extremely "social" in terms of natural desire to want to interact deeply and extensively with our fellow hunter-gatherers… and we learned to place an extremely high value on incoming information flows relating to our social station and environment.

So guess which two natural phenomena Facebook exploits the hell out of? Yep. It's just biology. You will find that most all of the patterns wind up in this place.

Much can be understood by going back to our roots, tracing the behavior source.

So many things that seem strange or out of place today, where we scratch our heads and say "why do humans do this thing"… can be explained by going back to our roots, comparing our original environment programming to the modern world.

As mentioned, it is our instinctive desire to be mentally lazy and conserve energy. This seems to be something we have to fight.

Modern humans have a natural inclination for mental and physical laziness that is so strong, it almost appears self-destructive. It would seem that our biology has again betrayed us.

The Energy Conservation Tendency

Conserving energy was a feature, not a bug, for a perpetually active species.

But the rich irony is that, once again, the instinct to conserve energy in our formative biological environment was a feature, not a bug, to balance out the fact that the typical hunter-gatherer used their bodies, and their brains, *constantly and all the time*.

Consider that professional cyclists, particularly Tour de France riders, have a culture of conserving physical energy at all times.

The gist is that, if a Tour de France rider is not on their bike, they are keeping their feet elevated and attempting to be as "lazy" as possible. Why? Because they are conserving energy for their main job – training and racing on the bike.

In similar fashion, as hunter-gatherers we developed a natural taste for energy conservation because, as with Tour de France riders, our "job" – the job of survival – was so naturally taxing in terms of energy day-to-day expenditure that we needed a built-in conservation balance.

We are built to perform constantly… and the rest impulse was thus a benefit. It was a feature, not a bug, given the standard environmental inputs that shaped our original design (which came about through natural selection pressure over millennia). Now, though, the balancing performance aspect has disappeared.

One positive aspect to this message is that it's "not our fault" society has become the way it is, in the sense of blaming people for choosing weakness by default.

Most people don't realize the choices they make – they just respond to the modern world.

This is not a question of morality – so much of it is just biology and circumstance. It is the biology-technology-culture mismatch that's occurred, without most people having any idea as to why.

But coming back to brain power… and Heinlein… just as hunter-gatherer humans were closer to Olympic Athletes than today's physical couch potatoes, they were also diversely skill-equipped in the manner Heinlein describes.

One could strongly argue, in fact, that the average hunter-gatherer had to make far, far more use of their cognitive abilities – their brains as well as their bodies – than the average person in the Western World does today.

The logic runs like this:

The average hunter gatherer was very much about high performance.

> The human body is a high performance survival machine, designed by Mother Nature (through natural selection pressures in its formative biological environment) to routinely experience a high level of caloric burn and general physical use.
>
> Get away from this and the body starts to malfunction, like a sports car that isn't driven or maintained properly and run on poor fuel. This results in chemical reactions and systemic breakdowns that detract from well-being in ways that are very real and very unpleasant over time.

But the kicker is this:

> The human brain is also a high performance survival machine, meant to "specialize" in a wide and diverse variety of areas, while being "used" extensively and demonstrating a high degree of output, attention and focus, in relatively high stakes situations.
>
> The brain was designed to be used as diversely and extensively as the human body, every day… thus NOT using it in this way leads to negative results (discontent and unhappiness etc).

Read the Heinlein quote again one more time:

> *A human being should be able to change a diaper, plan an invasion, butcher a hog, conn a ship, design a building, write a sonnet, balance accounts, build a wall, set a bone, comfort the dying, take orders, give orders, cooperate, act alone, solve equations, analyze a new problem, pitch manure, program a computer, cook a tasty meal, fight efficiently, die gallantly. Specialization is for insects.*

And then read the following excerpt from "Sapiens: A Brief History of Humankind" by Yuval Harari:

Our ancestors foraged for knowledge and had a surprising array of sophisticated skill sets.

> [Hunter-gatherers] did not forage only for food and materials. They foraged for knowledge as well. To survive, they needed a detailed mental map of their territory. To maximize the efficiency of their daily search for food, they required information about the growth patterns of each plant and the habits of each animal. They needed to know which foods were nourishing, which made you sick, and how to use others as cures. They needed to know the progress of the seasons and what warning signs preceded a thunderstorm or a dry spell. They studied every stream, every walnut tree, every bear cave, and every flint-stone deposit in their vicinity. Each individual had to understand how to make a stone knife, how to make a torn cloak, how to lay a rabbit trap, and how to face avalanches, snakebites or hungry lions. Mastery of each of these many skills required years of apprenticeship and practice.
>
> The average ancient forager could turn a flint stone into a spear point within minutes. When we try to imitate this feat, we usually fail miserably.

> Most of us lack expert knowledge of the flaking properties of flint and basalt and the fine motor skills needed to work them precisely.
>
> In other words, the forager had wider, deeper and more varied knowledge of her immediate surroundings than most of her modern descendants. Today, most people in industrial societies don't need to know much about the natural world in order to survive… the human collective knows far more today than did the ancient bands. But **at the individual level, ancient foragers were the most knowledgeable and skillful people in history.**

Some say our ancestors were far more knowledgeable and skillful than the average human today.

Hunter-gatherers, in other words, were arguably complete and total badasses in the Robert Heinlein mold.

Our ancestors not only used their bodies vigorously day in and day out… they used their *brains* too. Across a wide variety of skill sets. Having undertaken demanding apprenticeships in multiple areas.

This is, literally, what our high performance equipment is *designed* to do.

And that is why *doing what we are designed to do* will *literally* increase an internal sense of fulfillment and contentment, by keeping the machine in optimal output mode and routinely releasing the chemical reactions within the machine that produce feelings of well-being.

Conversely, not using the machine as it was meant to be used – vigorously, thoroughly, in a "high stakes" type manner on a regular basis, with a naturally oriented transcendence of the trivial and the petty – results in a decline of the human spirit, a decline of physical and mental function, and a whole host of other problems (including mental problems) that stem from that.

The softness of the modern world is an accidental trap – an instance of being physically and spiritually poisoned by our own excess of success.

The softness of the modern world is an accidental trap.

We are invited to be physically and mentally comfortable in ways that actually make us unhappy, even miserable.

Our natural biological wiring, in the presence of this biology-technology-culture mismatch, results in temptations of abundance that drastically reduce our contentment rather than increasing it.

The hunter-gatherer paradigm says that, if we are high-performance survival machines, we will be happiest when performing… and doing things that encourage surviving (and thriving).

We feel fulfilled in carrying out our biologically wired mission, which was custom-contoured for challenge-filled environments.

And not just in some abstract way either – we feel literally fulfilled, by way of mood-enhancing chemicals and physical-mental feedback loops auto-generated by the body to further reinforce survival-positive activity.

The Chemical Contentment Component

A large component of happiness and well-being is biological, i.e. chemical.

Putting philosophy and metaphysics aside, we can state with scientific certainty that a large component of happiness – and general sense of well-being, which runs deeper than happiness – is purely biological.

In a very real sense, happiness is generated by chemicals, which in turn are generated by a healthy human body being stimulated in the right way, which comes from the type of activities we were meant to engage in, and the mental states we were meant to cultivate.

> There is oxytocin, produced via physical affection in the presence of loved ones, or in social settings with feelings of belonging toward one's family, tribe or group.
>
> There are endorphins produced by exercise.
>
> There are mood balancers created by exposure to sunshine and vitamin D synthesis.
>
> There are various means of creating dopamine hits, a neurotransmitter related to pleasure centers and reward systems.
>
> There is the famed "runner's high," which increases our willingness to run long distances when chasing and tracking animals. (Man is the best long-distance runner in the entire animal kingdom, which allowed us to hunt four-footed prey over great distances, and simply run them out to the point of exhaustion.)

And that is just scratching the surface…

These things, combined with feeling healthy and being comfortable with one's physical body, are bedrock contentment sources.

They create stable moods and positive mental energy, which in turn create resilience in the face of day-to-day setbacks and challenges. When you have these things, you can perform better at *anything*. The inverse also applies.

Our chemical reactions and bodily adjustments were designed to aid survival.

This is not coincidence. Our mood-enhancing chemical reactions and bodily adjustments were designed to aid survival. When a habit was survival-positive, selection pressures encouraged mood-enhancing chemical results to encourage it.

Even our negative moods – the depressive episodes so many take medication for today – were originally survival oriented.

The tendency to feel depressed was originally a feature and not a bug, because the body needed an environmental signal to reduce energy expenditure and cut physical activity in semi-hibernation periods.

Stuck in a cave for weeks on end as a winter storm rages? It's better not to move around much in such periods… and so depression evolved as a mood regulator in

response to environmental conditions, when less movement was temporarily better for survival – causing us to feel "down" when taken from sunshine and confined to small spaces.

Sun Tzu said:

> *If you know the enemy and know yourself, you need not fear the result of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battle.*

Now we see how "know thyself" runs far deeper than most can imagine.

To know thyself, one must understand the nature of the machinery.

It means understanding the nature of the machinery, and fine-tuning one's actions and behaviors in light of that understanding. It means knowing one's biology!

This quote from Blaise Pascal has struck many as profound:

> *All men's miseries derive from not being able to sit in a quiet room alone.*

But that quote, as profound as it sounds, is actually way off base (or quite misguided at best) because it is totally ignorant of our natural roots.

If the "quiet room" is gloomy… and there isn't enough sunshine or nutrition or physical activity… then sitting in a quiet room alone, for long enough, is enough to induce a self-reinforcing dark mood cycle or even clinical depression!

Use It Or Lose It

The body and brain are unique as high performance machines in another crucial way – they automatically fine tune themselves through regular use.

Routine physical activity keeps key muscle groups active and repaired, for example, which is why an activity as simple as walking can be a safeguard against lower back pain (and all the chair-sitting we do).

One might assume automatic repair would be a better design. Why don't muscles just keep themselves up to par regardless?

The answer goes back to energy conservation principles. Rebuilding muscle fibers (or reinforcing neural pathways to learn something new or change a mental pattern) means burning precious energy.

If you don't use it, your body assumes you don't need it, and neglects it.

The body is adapted to scarcity environments where food – our source of energy – can be scarce. And so the body practices a kind of energy conservation "strategic neglect" principled. If you don't use it, then it's assumed you don't need it… so why burn up energy to maintain it?

The same applies for mental activity and the pursuit of activities with a healthy "survival" feel to them, in terms of rising above the humdrum of low stakes and getting our heart beating faster (which, in the right dosage, is beneficial).

Because we no longer need to "survive" in the sense of "acquire sustenance or perish," we have to replace "survive" with "thrive" to get the same injection of positive buzz we were meant to maintain at healthy levels – the "thrill of living" was originally, literally, "the thrill of surviving" which we were designed to embrace and crave – which means pushing towards goals more exciting and fulfilling than simply meeting next month's rent check or paying the bills.

We have to push our muscles… and push our mental skills… and *push the personal envelope*… and in so doing allow the body and mind to fine tune themselves through activity, while recognizing that comfort, if too directly pursued, is a trap.

Pushing the enveloped, and forgoing comfort in doing so, is crucial.

Your body and mind, working together, are an extraordinary machine. To succeed in trading, you want to maximize the performance of that machine.

This means being aware of the machine, thinking about the machine, and then thinking about ways to repair or fine-tune the machine for enhanced output.

As such, the biology-technology-culture mismatch is one of the central concepts in discussing the hunter-gatherer impact on trading.

Figuring out how to rectify the mismatch is a key to upgraded performance for body and mind, which in turn allows for upgraded performance in trading and, well, everything else too.

Problems and Adjustments

The following is a list of potential problems arising specifically from the modern world mismatch – programming aspects born of hunter-gatherer origins that lead to issues and negative results in the modern world.

OVERCONSUMPTION OF SUGARS AND FATS

Original Environment: Scarce sugars and fats were beneficial for the body in the relatively small amounts consumed (and today's processed and refined sugars didn't exist – even fruits had less sugars in them).

Original Rationale: It's logical to consume sugars and fats when you can take advantage of having them, because available quantities are scarce and you don't know when you'll find them again.

Modern World Mismatch: Sugars and fats are now everywhere – provided in superabundance and artificial concentration – because the body naturally craves them without limit, and free market systems orient toward efficiently serving those bottomless cravings.

Possible Solution: Recognize that the current environment is unnatural relative to the body's installed programming; significantly limit sugar, carbs and saturated fats intake as a matter of deliberate habit for the sake of improved health and mental well-being.

OVERCONSUMPTION OF CARBS

Original Environment: Carbohydrates were highly desirable because caloric burn was high, by way of vigorous physical activity, and food quantities were limited or correlated to physical effort.

Original Rationale: Eat carbs when you can because you'll burn them off fairly quickly, with more burn requirements tomorrow, and adding to fat stores in case food supplies get scarce is no bad thing either.

Modern World Mismatch: Carbs are now everywhere, again because of cravings and technology-enabled market fulfillment, yet the body is happy to graze on carbs all day long in the absence of an internal regulator. This results in bloating, excessive energy expenditure on digestion, more delivery of sugar toxins, irritability, and so on.

Possible Solution: Push back against low-level hunger, recognizing that the body's hunger thermostat is not set for the modern world. Make a game of burning calories and avoiding carbs. Set a target weight and reward hitting the target with permission to binge – but then go back to performance-oriented discipline, with cognitive control and systemic awareness overriding the body's craving signals.

OVERCONSUMPTION OF DISTRACTING INFORMATION

Original Environment: Rich and diverse information streams are crucial to survival. If something changes in your environment, chances are you should pay attention to it as an opportunity or a threat.

Original Rationale: Information was scarce (like sugars and fats) and new information was worth paying attention to. The value of being curious and responding to information cues, like the desire to consume sugars and fats when they were relatively scarce, had no natural regulator because maximum attention was optimal.

Modern Day Mismatch: The modern world is exploding with useless information streams and real-time null value communication pings. The original hunter-gatherer impulse – to pay attention to new information – has been overwhelmed and in many cases deliberately hijacked (e.g. by Silicon Valley wanting to hook you on using an app).

Possible Solution: Recognize that "information overload" can lead to a bloated and impaired mind in the same manner that overconsumption of carbs can lead to a bloated and impaired body. View excessive or useless information streams as junk food calories for the brain, and cultivate feelings of self-defense (and possibly even disgust) in respect to the way junk information dilutes and destroys attention capacity.

LACK OF VIGOROUS PHYSICAL ACTIVITY

Original Environment: Vigorous physical activity was non-optional as part of day-to-day life, thus placing a premium on opportunities to rest and relax or to otherwise conserve precious energy.

Original Rationale: Physical activity is a regular and routine thing, while energy is a precious resource. As such it makes sense to conserve energy and not expend it where you don't have to.

Modern Day Mismatch: The modern world has created the opportunity to avoid vigorous physical activity almost entirely with the tendency to conserve energy still intact, leading to sedentary lifestyles the body was not designed for, resulting in problems like increased fat stores, weakened muscles, increased tiredness and irritable moods.

Possible Solution: Recognize that vigorous physical activity on a regular basis is a vital aspect of tending to one's machinery, and be strict in scheduling such activity into day-to-day life as a maintenance aspect of overall well-being and performance.

BOREDOM, FRUSTRATION AND A SENSE OF AIMLESSNESS

Original Environment: The act of survival required high levels of engagement, creating a sense of meaning derived from activities of obvious importance (e.g. finding food or warding off predators) plus the routine navigation of risks and dangers – an element of "high stakes" and "this feels important" woven into daily existence.

Original Rationale: Humans decided to forego the more standard tools of survival – powerful muscles, explosive speed, teeth, claws – in favor of relying on creativity and wits. The "survival problem" thus keenly sharpened the mind, keeping it focused and engaged.

Modern Day Mismatch: In the Western World the act of survival has been separated from a sense of "high stakes," instead attached to a sense of grueling "low stakes" in the form of boring jobs and repetitive activities, leading to a restless dulling of mind and spirit.

Possible Solution: Recreate a sense of high stakes and daily meaning by setting aggressive goals and committing to a chosen purpose. Add meaning back into the day-to-day life equation by taking calculated risks that fuel knowledge and personal growth.

DEPRESSION AND DARK MOODS

Original Environment: Depression may have evolved as a further form of energy conservation mechanism, in order to reduce the desire for physical activity when periods of immobility were useful (healing from an injury, riding out a harsh winter in a confined space, etc).

Original Rationale: Just as "fight or flight" adrenaline bursts can be useful in a situation where you either needed to fight like hell or run away at top speed, a depressed mood could encourage staying still in situations where lethargy was a better survival strategy than activity.

Modern Day Mismatch: Through factors like being confined to a small space, avoiding sunshine, limiting or avoiding physical activity, living off carbs or junk food (depriving the body of beneficial nutrients), maintaining a slumped or defeated posture, and getting into a habit of shallow breathing, it is relatively easy to accidentally replicate the conditions that may have intentionally triggered depressive and lethargic moods in our hunter-gatherer ancestors.

Possible Solution: Make scheduled efforts to get sunshine (or get an artificial sunlight device if living in a constantly overcast area); monitor sleep amounts, nutrition quality, exercise regularity, and posture and breathing habits as potential problem areas to work on; fight depressive episodes with stepped up efforts to sleep well, eat well, exercise well, and maintain a confident body posture while breathing deeply; get in the habit of viewing the mind and body as a biological system, with the important implication that mood issues may be a solvable technical problem rather than something to just be lived with.